

Notice of Allowability

Application No.

10/827,150

Examiner

Quang N. Vo

Applicant(s)

CHANG ET AL.

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/7/07.
2. ☒ The allowed claim(s) is/are 1,2,4-7 and 9-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

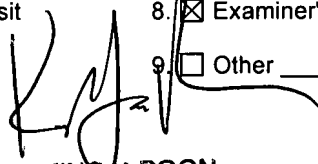
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |



KING Y. POON
SUPERVISORY PATENT EXAMINER

The following is an examiner's statement of reasons for allowance:

Renumbered as claims 1-16 for pending claims 1, 2, 4-7, 9-18.

Claims 1,2, 4-7, and 9 of the current application are allowed for the reasons of none of prior art of record teaches nor suggests "dividing the image data into a plurality of image blocks; for each of the image blocks, selecting one of the pixels belonging to the image block being processed as a target pixel and as a starting pixel from which an error diffusion calculation is to be executed in a direction across the image block, wherein the target pixel is located on a boundary of the image block; assigning a predicted error to the target pixel, wherein the predicted error is determined according to at least an error diffused from a last pixel which is adjacent to the target pixel, wherein the last pixel and the target pixel do not belong to the same image block; and executing the error diffusion calculation on the rest of the pixels of the image blocks in the direction across the image block according to the predicted error of the target pixels of the image blocks."

Claims 10-18 of the current application are allowed for the reasons of none of prior art of record teaches nor suggests "dividing the image data into a plurality of image blocks, wherein each of the image blocks comprises a plurality of image rows, each of which comprises a plurality of pixels; for each of the image blocks, performing error diffusion of the image rows of the image block being processed in alternate directions, the performing step comprising: selecting a first one of the pixels belonging to a first one of the image rows of the image block being processed as a first target pixel and as a starting pixel from which an error diffusion calculation is to be executed in a first

direction along the first one of the image rows, wherein the first target pixel is located on a boundary of the image block; assigning a first predicted error to the first target pixel; executing the error diffusion calculation on the rest of the pixels of the first one of the image rows according to the first predicted error of the first target pixel in the first direction along the first one of the image rows; selecting a second one of the pixels belonging to a second one of the image rows of the image block being processed as a second target pixel and as a starting pixel from which an error diffusion calculation is to be executed in a second direction along the second one of the image rows, wherein the second target pixel is located on a boundary of the image block; assigning a second predicted error to the second target pixel; and executing the error diffusion calculation on the rest of the pixels of the second one of the image rows according to the second predicted error of the second target pixel in the second direction along the second one of the image rows; wherein the first direction is the opposite of the second direction."

The closest prior art Maikeru et al. (Pub. No.: 06-301364), discloses the method and device capable of performing the error diffusion of an image at a high speed picture element rate by using parallel processing, either singularly or in combination with other cited reference obvious fails to anticipate or render the above limitations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Vo whose telephone number is 5712701121. The examiner can normally be reached on 7:30AM-5:00PM Monday-Friday.

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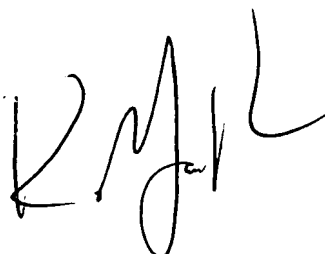
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Y. Poon can be reached on 5712727440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Quang N. Vo 12/7/07
Patent Examiner



KING Y. POON
SUPERVISORY PATENT EXAMINER